IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

VoiceAge EVS LLC, Plaintiff, v. HMD Global Oy, Defendant.	C.A. No. 19-1945-CFC **JURY TRIAL DEMANDED**

JOINT CLAIM CONSTRUCTION CHART

Pursuant to Exhibit A of the Court's Scheduling Order (D.I. 43), Plaintiff VoiceAge EVS LLC ("VoiceAge") and Defendant HMD Global Oy ("HMD") submit this Joint Claim Construction Chart for U.S. Patent Nos. 7,693,710 (the "'710 patent") (attached as Exhibit A), 8,401,843 (the "'843 patent") (attached as Exhibit B), 8,990,073 (the "'073 patent") (attached as Exhibit C), 8,825,475 (the "'475 patent") (attached as Exhibit D), and 9,852,741 (the "'741 patent") (attached as Exhibit E) (collectively, the "Asserted Patents").

I. AGREED-UPON CONSTRUCTIONS

Patent	Term for construction	Agreed-upon construction
'710 patent	"A device for conducting concealment of frame erasure caused by frames of an encoded sound signal erased during transmission from an encoder to a decoder, comprising:" Claims 16, 17, & 24	Preamble is limiting
'710 patent	"concealment/recovery parameters selected from the group consisting of a signal classification parameter, an energy information parameter[,] and a phase information parameter" Claims 4, 16, 17, & 24	concealment/recovery parameters that must be selected from the group consisting of a signal classification parameter, an energy information parameter, and a phase information parameter, and cannot include any other concealment/recovery parameters
'843 patent	"A transition mode [device]/[method] for use in a predictive-type sound signal codec for producing a transition mode excitation replacing an adaptive codebook excitation in a transition frame and/or at least one frame following the transition in the sound signal, comprising:" Claims 1 & 31	Preamble is limiting

Patent	Term for construction	Agreed-upon construction
'843 patent	"An encoder [device]/[method] for generating a transition mode excitation replacing an adaptive codebook excitation in a transition frame and/or at least one frame following the transition in a sound signal, comprising:" Claims 11 & 41	Preamble is limiting
'073 patent	"A [method]/[device] for detecting sound activity in a sound signal, wherein the sound signal is classified as one of an inactive sound signal and an active sound signal according to the detected sound activity in the sound signal, the [method]/[device] comprising:" Claims 10 & 36	Preamble is limiting
'073 patent	"tonal stability tonal stability" Claims 10, 20, 30, 31, 36	tonal stability
'475 patent	"A Code-Excited Linear Prediction (CELP) codebook coding [device]/[method] for encoding sound into first, second, and third sets of encoding parameters, comprising:" Claims 1 & 17	Preamble is limiting
'741 patent	"transformiiii [sic]" Claim 26	transform

II. DISPUTED CONSTRUCTIONS

Patent	Term for construction	VoiceAge's proposed construction and intrinsic evidence	HMD's proposed construction and intrinsic evidence
'710 patent	"A method of concealing frame erasure caused by frames of an encoded sound signal erased during transmission from an encoder to a decoder, comprising" Claim 4	Preamble is not limiting Intrinsic evidence: Title; Abstract; Fig. 6; 1:18-25; 2:58-63; 3:4-10; 3:16-22; 3:41- 47; 4:50-53; 11:18-21; 11:38-62; 12:13-17; 12:64-13:35; 26:53-62; 31:37-39; April 24, 2005 Certified Copy of Foreign Priority Application at 4 ("Objective of the invention").	Preamble is limiting Intrinsic evidence: 2:8-30; 2:31-54; 4:25-39; 4:50-53; 11:18-21; May 4, 2009 Response to Notice of Non-Compliant Amendment at 37.
'710 patent	"transmission from an encoder to a decoder" Claims 4, 16, 17, & 24	Plain and ordinary meaning Intrinsic evidence: Abstract; Figs. 1-3; 2:66-3:3; 3:16-21; 3:28-35; 3:41-48; 3:57-64; 4:27-39; 4:50-56; 5:19-22; 11:18-37; 11:58-64; 23:65-24:64; 31:47-59; 36:5-7; 36:31-44.	transmission from an encoder to a decoder across a communication channel comprising a wire, an optical link, or a fiber link and at least in part a radio frequency link Intrinsic evidence: 4:27-35; 6:36-38; Figure 1

Patent	Term for construction	VoiceAge's proposed construction and intrinsic evidence	HMD's proposed construction and intrinsic evidence
'710 patent	"a signal classification parameter" Claims 4, 16, 17, & 24	a parameter used to determine frame classification Intrinsic evidence: Fig. 5; 4:7-9; 13:57-14:56; 18:65-19:40; 19:54-20:21; September 3, 2009 Applicant Arguments/Remarks Made in an Amendment at 1-2.	a parameter used to determine frame classification, for example, a normalized correlation, a spectral tilt measure, a signal to noise ratio, a pitch stability counter, a relative frame energy of the signal at the end of the current frame, and a zero-crossing counter Intrinsic evidence: 14:48-52; 19:1-12; Table 2; 19:13-40; Table 3; 9:32-48, 14:34-58; Table 4
'710 patent	"transmitting" Claims 4, 16, 17, & 24	Plain and ordinary meaning Intrinsic evidence: Abstract; Figs. 1-3; 2:66-3:3; 3:16-21; 3:28-35; 3:57-64; 3:41-48; 4:27-39; 4:50-56; 11:18-37; 11:58-64; 31:47-59; 36:5-7; 36:31-44.	transmitting across a communication channel comprising a wire, an optical link, or a fiber link and at least in part a radio frequency link Intrinsic evidence: 4:27-35; 6:36-38

Patent	Term for construction	VoiceAge's proposed construction and intrinsic evidence	HMD's proposed construction and intrinsic evidence
'710 patent	"communication link" Claims 16, 17, & 24	a portion of a communication channel Intrinsic evidence: Fig. 1; 4:25-32.	a connection between two devices across a communication channel comprising a wire, an optical link, or a fiber link and at least in part a radio frequency link In the alternative, indefinite. Intrinsic evidence: 4:27-32; May 4, 2009 Response to Notice of Non-Compliant Amendment at 20, 28, 34
'710 patent	"classifier" Claims 16, 18-19, & 24	Plain and ordinary meaning (and not governed by § 112, ¶ 6). Intrinsic evidence: Fig. 5; 11:68-64; 12:56-14:56; Fig. 7; 18:12-18; 20:17-21; May 4, 2009 Amendment and Response to Office Action (Claims) at 22, 27, 31-32 with respect to issued claims 16, 18-19, 24; References cited in the '710 patent: U.S. Pat. Pub. 20020123887 at ¶ 9; U.S. Pat. No. 5,664,055 at 29:50-13; U.S. Pat. No. 5,699,485 at 32:28-65; U.S. Pat. No. 6,233,550 at Fig. 4A, 13:17-20:6; June 8, 2009	Means-plus-function (governed by § 112, ¶ 6). Function: classifying successive frames of the encoded sound signal as unvoiced, unvoiced transition, voiced transition, voiced, or onset Structure: no corresponding structure, material, or acts described in the specification. Indefinite. Intrinsic evidence: Abstract; 4:12-14; 9:32-48; 11:58-64; 12:64-20:67; Figure 7; May 4, 2009 Response to

Patent	Term for construction	VoiceAge's proposed construction and intrinsic evidence	HMD's proposed construction and intrinsic evidence
		Office Action at 10; U.S. Pat. No. 6,418,408 at Fig. 4, 23:31-25:64.; U.S. Pat. No. 6,475,245 at Fig. 4a, 13:20-56; 18:26-19:26; U.S. Pat. No. 7,016,833 at Fig. 16-18, 12:59-14:22; U.S. Pat. No. 7,149,683 at Fig. 5, 5:11-7:14, 11:35-39, 13:5-42, 21:34-35; U.S. Pat. No. 7,272,556 at Figs. 5, 5a, 5:43-49, 15:9-16:52.	Notice of Non-Compliant Amendment at 21-26, 28, 30-33
'073 patent	"A [method]/[device] for estimating a tonal stability [tonal stability] of a sound signal using a frequency spectrum of the sound signal, the [method]/[device] comprising:" Claims 1, 30, & 31	Preamble is not limiting Intrinsic evidence: Title; Abstract; 3:42-4:6; 27:31-33.	Preamble is limiting Intrinsic evidence: Abstract; 1:26-32; 2:50-53; 3:38-40; 3:44-4:6; 11:45-48; 14:30-34; 16:5-11; 16:15-21; 16:52-65; 17:4-5; 18:41-44; 18:65-67; 19:1-7; 19:20-25; 19:40-41; 20:37-39; 24:25-30; 25:10-12; 26:3-5; 26:10-14; 26:62-63; Dec. 16, 2009 Transmittal of New Application at 1, 4-6, 27-36, 38, 44-64; Dec. 16, 2009 Submission of PCT Priority Document at Cover Page; Jan. 31, 2013 Non-Final Rejection at 2-10, 14, 17; May 22, 2013 Amendment & Remarks at 13-16; Oct. 4, 2013 Final Rejection at

Patent	Term for construction	VoiceAge's proposed construction and intrinsic evidence	HMD's proposed construction and intrinsic evidence
			4-16, 19; Feb. 3, 2014 Response After Final at 2-5; Apr. 1, 2014 Amendment & Remarks Submitted w/RCE at 14-19; Oct. 29, 2014 Amendment at 2-5, 7-12, 14; Nov. 6, 2014 Notice of Allowance at 2-8; Nov. 6, 2014 Examiner-Initiated Interview Summary at 1.
'475 patent	"switches" Claims 1, 3, 9, & 11	Plain and ordinary meaning Intrinsic evidence: 13:15-30; Figure 6; References cited in the '475 patent: U.S. Pat. Pub. 2003/0009325, Abstract, Figs. 1, ¶¶ 22, 24, 35-37, 40-42, 49, 67, 78; U.S. Pat. Pub. 2003/0191635 at Fig. 4, ¶¶ 34, 43; U.S. Pat. Pub. 2007/0225971 at Fig 12, Fig 14a, ¶¶ 219-220, 227, 355, 356, 366, 382, 391, 392; U.S. Pat. Pub. 2011/0010168 at Fig. 7a, ¶¶ 72, 75, 76, 78, 82, 87; U.S. Pat. No. 6,134,518 at Fig. 2, 2:46-59, 3:63-4:2, 5:18-24, 5:44-57.	devices for making and breaking the connection in an electric circuit Intrinsic evidence: 13:15-30; Figure 6

Dated: June 16, 2022

Respectfully submitted,

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